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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,522	03/22/2004	Kazuhiko Kikuchi	016907-1648	9197
22428	7590	01/25/2006	EXAMINER	
FOLEY AND LARDNER LLP			LEUNG, PHILIP H	
SUITE 500			ART UNIT	
3000 K STREET NW			PAPER NUMBER	
WASHINGTON, DC 20007			3742	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

10/805,522

Applicant(s)

KIKUCHI ET AL.

Examiner

Philip H. Leung

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation “a cover which covers the image forming apparatus” at line 6 of claims 1 and 8 is unclear because the term “the cover” is a part of “the image forming apparatus”. It is not understood how a component can cover the overall structure including the specific component itself (the cover)? In regard to claim 16, the limitation “the coil is placed inside the conductive member” contradicts the limitation “a conductive member having on its outside a coil” of claim 8 (line 2). On the other hand, the same limitation “the coil is placed inside the conductive member” is a duplicate of the limitation “a conductive member having on its outside a coil” of claim 8 (line 2). These two claims should therefore be cancelled. Clarification and correction are suggested.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 8, 17 and 18, as far as the claims are understood and proper, are rejected under 35 U.S.C. 102(b) as being anticipated by Terada et al (US 2003/0152406 A1) (newly cited).

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Terada shows “an image forming apparatus comprising: a heating member (roller 1) which includes a conductive member containing a coil (5) for, when supplied with a voltage and current of a specific frequency, producing a magnetic field of a specific magnetic field intensity and generating heat by the magnetic field supplied from the coil; a cover (the enclosure formed with bottom plate 25, top plate 26 and the two side plates as shown in Figure 9) which covers the image forming apparatus and houses the heating member (1); and a magnetic field attenuating member (29, as shown in Figure 10A) which is placed between the heating member and the cover, and which is capable of attenuating the magnetic field intensity of the magnetic field passing through the magnetic field attenuating member (see Figures 9 and 10A and paragraphs [0135]-[0141]. In regard to claim 8, the charger 12 and/or the laser beam scanner 13 which are located outside the shield (29) inherently include at least one circuit (see Figure 9) as there is no function for the claimed circuit.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-7 and 9-16, as far as the claims are understood and proper, are rejected under 35 U.S.C. 103(a) as being obvious over Terada et al (US 2003/0152406 A1), in view of Watanabe et al (US 2002/0186991 A1) (previously cited).

As set forth above, Terada shows every feature as claimed except for exact structure of the shield. Watanabe shows an image forming apparatus comprising: a heating member (roller 11) which includes a conductive member (paragraph [0044]) containing a coil (10) for, when supplied with a voltage and current specific frequency, producing magnetic field of a specific magnetic field intensity and generating heat by the magnetic field supplied from the coil; a magnetic field attenuating mechanism (blocking plate 31, 32) which is capable of attenuating the magnetic field intensity of the magnetic field passing through the mechanism (see Figures 1-7 and paragraphs [0041] – [0076]). In regard to claims 6 and 13, it shows that the plate 31, 32 having a thickness of about 0.1-2 mm is formed of a conductive layer including aluminum and its alloy (see paragraphs [0059], [0067], [0072] and [0074]). In regard to claims 7 and 14, since the roller 10 is 40 mm in diameter, therefore the distance between the blocking plates 31, 32 is less than 80 mm (see paragraph [0064]). It would have been obvious to an ordinary skill in the art at the time of invention to modify Terada to determine the exact structure of the shielding member according to the magnetic field distribution, in view of the teaching of Watanabe for better shielding effect. The claimed relation between the thickness of the shielding layer and the skin depth of the heating layer as claimed in claims 4 and 11 would have been an obvious engineering expediency since it is well known in induction theory that the skin depth is a function of the thickness and the frequency. In regard to claims 15 and 16, it is well known in the art of induction image forming devices to locate the induction heating coil either inside the roller (Watanabe) or outside of the roller (Terada).

6. Claims 2, 3, 9 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

7. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip H Leung whose telephone number is (571) 272-4782.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 472-4777. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Philip H Leung". The signature is fluid and cursive, with a large initial "P" and "L".

Philip H Leung  
Primary Examiner  
Art Unit 3742

P.Leung/pl  
1-22-2006